

WARREN WWTF

Warren's wastewater facility began operation in 1981. The town and its contract operators have continually upgraded the facility, however ongoing problems with storm-related inflow keep the plant's flow artificially high. As such, at the behest of RI DEM, the town is currently seeking to improve this inflow problem. It should be noted that it is only because of high flows that the Warren facility received a "Fair" rating, as the ongoing work of the plant staff (who have no control over flow) remains excellent. Operated by Woodard & Curran, based in Portland Maine, five full time operators staff the plant. The Warren facility, located on Water Street, discharges into the Warren River.



Superintendent: Dave Komeiga
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 P.O. Box 70
 Warren, RI 02885
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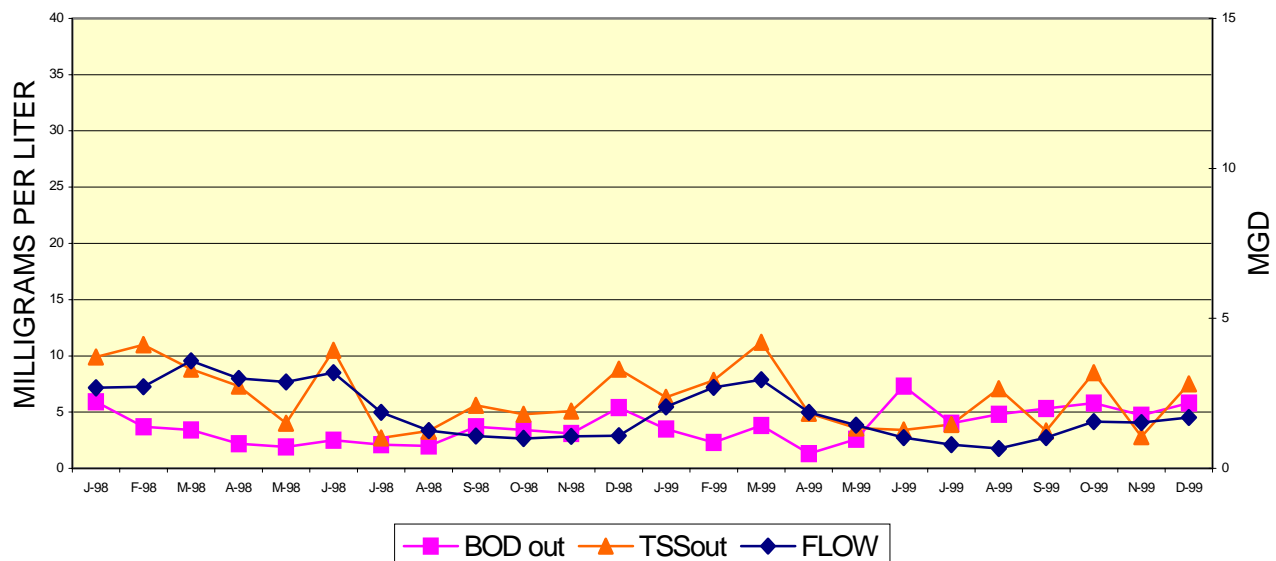
CURRENT AND FUTURE CONCERNS

Warren's current permit expires December 1, 2001. On February 5, 1999, the facility achieved compliance with the water quality based limits for chlorine. The Town of Warren remains subject to Compliance Order RIO-122, which in part requires the Town to address excessive infiltration and inflow. RIDEM is developing a water quality restoration plan to address excessive algae growth in the Palmer River. Upon completion, the facility may be required to reduce its discharge of total nitrogen.

Overall Treatment: Fair

Having nine monthly violations for flow (January through June 1998 and January through March 1999), and no monthly violations for BOD, TSS or fecal coliform, Warren received a rating of Fair.

WARREN EFFLUENT DATA - 1998/1999



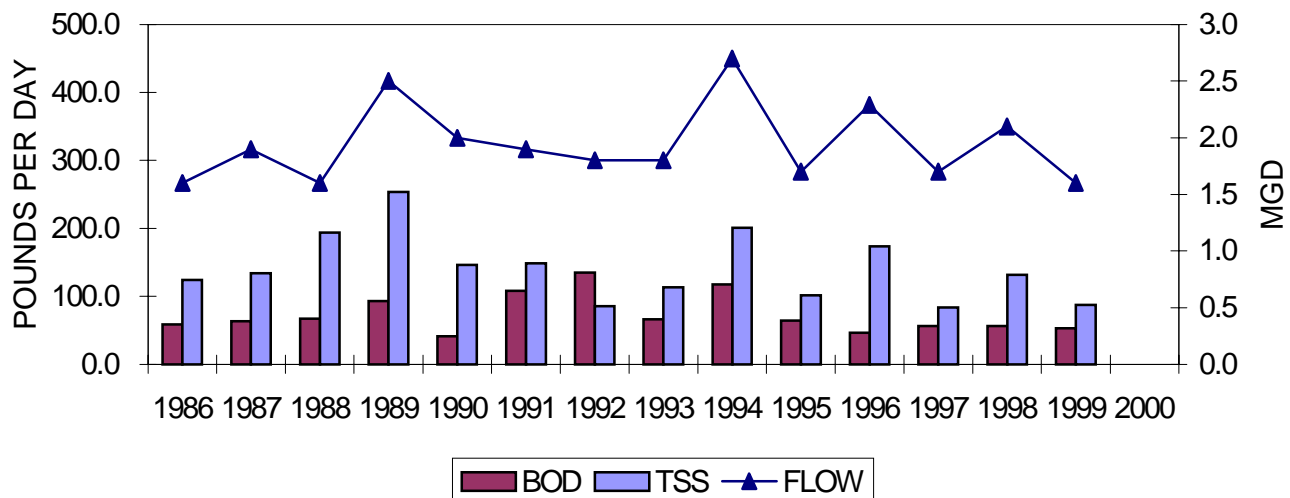
BEGAN OPERATION 1981

ANNUAL SURVEY

PARAMETER	1996	1997	1998	1999	PERMIT LIMIT	VIOLATIONS 1998/1999
FLOW (MGD)	2.3	1.7	2.1	1.6	2.01	6/3
BOD INFLUENT (MG/L)	156.9	174.5	170.6	180.3		
BOD EFFLUENT (MG/L)	2.4	4.3	3.3	4.3	30	0/0
BOD INFLUENT (LBS./DAY)	2923.5	2302.7	2564.0	2207.7		
BOD EFFLUENT (LBS./DAY)	46.7	55.9	56.4	52.8		
BOD % REMOVAL	98.4	97.6	97.8	97.6		
TSS INFLUENT (MG/L)	225.0	224.8	225.9	216.3		
TSS EFFLUENT (MG/L)	8.8	5.7	6.8	5.9	30	0/0
TSS INFLUENT (LBS./DAY)	4124.5	3002.4	3292.0	2593.3		
TSS EFFLUENT (LBS./DAY)	173.5	83.8	132.0	87.6		
TSS % REMOVAL	95.6	97.1	96.0	96.6		
FECAL COLIFORM (MPN/100ML)	5.3	4.4	7.2	5.3	200.0	0/0
CHLORINE RESIDUAL (MG/L)			0.1	0.2	0.455	0/0

*Daily Maximum Limit

WARREN 1986 -1999 DATA



Operations & Maintenance

The town and its contractor converted gaseous chlorine systems to liquid chlorination. The town also added a dechlorination system. Due to excessive flows during rain events, the town is continuing an investigation into the reasons and necessary repairs to solve this problem. One station bypass had been reported in 1999. As seen in the ratings below, the Warren WWTF staff routinely receives the highest ratings for operations, maintenance and laboratory quality control.

1998 O&M Rating: 10 out of 10

1999 O&M Rating: 10 out of 10

1998 Laboratory Rating: 5 out of 5

1999 Laboratory Rating: 5 out of 5

Overall O&M Rating: Excellent

1998 SLUDGE DISPOSAL METHOD

Incineration (NETCO)

SLUDGE PRODUCED

516 DRY TONS

1999 SLUDGE DISPOSAL METHOD

Incineration (NETCO)

SLUDGE PRODUCED

483 DRY TONS

Sludge generated by the facility is transported in liquid form to the NETCO-operated incinerator in Woonsocket for disposal.